

EXECUTIVE SUMMARY

The objective to meet the water and sanitation needs of people living with HIV and AIDS underestimates some of the biggest challenges in basic access. The people with the greatest needs often are the most disenfranchised and have the fewest resources available for solving problems in sustainable ways. It is therefore important that water supply and sanitation aspects and issues must be addressed to meet the increasingly complex needs of people living with HIV and AIDS. Since the start of the HIV and AIDS epidemic, several advances have been made to stop misconceptions around HIV transmission, especially in relationship to hygiene. In addition, stigmatisation around HIV and AIDS presents another problem that threatens to undermine prevention and care strategies. Generally, the stigma associated with HIV and AIDS could be avoided by serving the larger community rather than targeting only HIV and AIDS affected individuals and families with water, sanitation, and hygiene messages.

The Limpopo Province was considered as one of the poorer provinces and presented a worst case scenario with regards to education standards, water provision services and economic development when compared to other provinces. To exacerbate matters, the District Survey of 2006/7 stated that the prevalence of HIV and AIDS in the Vhembe district of the Limpopo Province was 14.2%. This document therefore report on the relationship between all facets of home-based care and water services and the health risks they pose in one area, the Vhembe District Municipality of the Limpopo Province, South Africa. The most important and applicable aspects of the policies, programmes and legislation have been summarised and recommendations are given based on observation, anecdotal information and issues discussed in the literature.

The aims of this project were therefore to investigate home-based care practices with regards to the experiences of care givers looking especially at water, sanitation and hygiene aspects and to perform a health risk assessment of the water used for domestic purposes in households in the caring for people living with HIV and AIDS.

Key findings from the study are as follows:

The investigation highlighted the plight of home-based care that essentially comprises unpaid work. Community Health Workers were sometimes paid for their work but the Government chose not to make them employees of the state. Many care givers provided their services for free. They were exposed to a series of health risks and similarly, to those people that suffered from HIV and AIDS, also experience stigmatisation, isolation and poverty.

• The burden of home-based care has disproportionately become the responsibility of women. Elderly woman and young girls spend many of their personal and study hours looking after the sick. They work many more hours than men. Home-based care often included both physical and psychological stress.

The lack of safe water, the availability of water and the quantity of water have been highlighted as some of the most important aspects that prevent adequate home-based care. The lack of these services adversely impacts on both the sick and the care givers.

Health risks identified were both physical and psychological. Physical risks included getting injured while helping patients and walking long distances. Psychological risks included isolation, stigmatisation and shunning by the community. The psychological risks were experienced by both the care givers and infected people.

The lack of appropriate sanitation facilities also adversely affects both care givers and the sick. The lack of proper sanitation resulted in people losing their dignity. This seemed especially true during the last stages of the illness when they suffered constant diarrhoea, could not control their bladders and become very weak and were wholly dependent on help of others to perform their bodily functions.

Care-givers were also exposed to situations where the probability of being infected with the HIV virus was heightened. They were often exposed to bodily fluids of sick people. They were also responsible for washing and cleaning sick people and their bedding and clothes. There was no guarantee that they would not get infected when performing these tasks. They often did not have gloves or any other protective clothing to prevent infection from such excretions and opportunistic infections.

□ A water quality analysis showed that about 48-56% of the household drinking water did not comply with the drinking water guidelines set by the World Health Organisation (WHO). Further analysis confirmed the presence of pathogenic *E. coli* strains in a number of household drinking water samples. The quantitative risk assessment that was performed, based on the presence of these pathogens, showed that a high risk of infection existed. This may have serious and adverse effects on people with compromised immune systems in the area.

Education and communication were highlighted as the two most important issues in the drive against the spread of HIV and AIDS by various politicians and the World Health Organisation. Therefore several policies and frameworks were approved for the South African conditions and their implementation is at various stages. At present there is no cure for the disease; however, the spread of the HIV virus can be halted by various intervention strategies based on water, sanitation and hygiene aspects. Without these interventions in households of people living with HIV and AIDS, the epidemic would not abate. It is also important to place more emphasis on proper training of organisations and individuals actively involved in the home-based care of people living with HIV and AIDS and to use these channels to improve living conditions and the well-being of people with compromised immune systems by reducing health risks from water, sanitation and hygiene aspects.

Immune compromised individuals are more susceptible to infection than healthy individuals. This may take the form of increased severity of infections caused by known pathogens as well as a greater vulnerability to emerging and opportunistic pathogens. It follows that the microbial water quality needs of individuals with HIV and AIDS may be different from those of healthy individuals. Having to use river water increases the probability of exposure to unsafe water and the potential for contracting waterborne diarrhoea. In the case of the HIV and AIDS infected persons the risks of being exposed to opportunistic organisms becomes very probable.

Indications are that people living with HIV and AIDS and households affected by HIV and AIDS have a substantially greater need for safe water, sanitation and hygiene. Furthermore, people on antiretroviral (ART) treatment require greater amounts of water of a quality for drinking. Diarrhoea caused by unsafe water can interfere with and compromise optimum absorption of these medicines. Evidence indicates that affected households require far greater than 20 L of water per person daily. Lack of knowledge in terms of their drinking water quality contributed to unhygienic practices that included drinking river water when tap water is available and compromising water quality of the household water through post-collection contamination. Post-collection contamination of in-house containers is well documented (Wright et al., 2006; Levy et al., 2008). This type of contamination is preventable to a large degree and people with adequate hygiene education would be able to prevent some of the infections that could plague HIV and AIDS patients by adhering to simple hygienic practices.

It is therefore vital that important details about what safe water is should be provided in home-based care guidelines. In addition, the training of care providers should include detailed instructions on household point-of-use water treatment techniques such as boiling, disinfection with hypochlorite solution (chlorine), and solar disinfection, as well as information on proper storage and handling of drinking water to reduce the potential for recontamination. Guidelines should include simple information on hypochlorite solution as a disinfectant and information on other water treatment options as part of all ARV distribution. Treating water in the home and storing it in an appropriate container have been shown to reduce the risk of diarrheal disease (Lule et al., 2005) and it would be important to include instructions on safe storage of drinking water.